From: Lillateese Simmons [simmons.lilly@epa.gov]
Sent: 1/19/2016 11:12:33 PM
To: Simmons, Lilly [simmons.lilly@epa.gov]; McGrath, Jesse [mcgrath.jesse@epa.gov]
Subject: Conversation with Lillateese Simmons

Lillateese Simmons 10:35 AM:

Man, the HQ ELN group is really influential

they have an event listed in This Week @ EPA

of course, the event involves management, but still

McGrath, Jesse 10:36 AM:
Where's "This week"?

Lillateese Simmons 10:36 AM:
its a weekly newsletter they email to all EPA

McGrath, Jesse 10:38 AM:
ooh.. I don't always look at those closely

Ohh. Karl Brooks. he's very good

Lillateese Simmons 10:41 AM:
did you go to his last ELN talk?

McGrath, Jesse 10:41 AM:
I think I missed one. I saw the one on Richard Nixon

I was planning on just listening in the background but it was pretty engaging and I ended up giving my full attention

Lillateese Simmons 10:42 AM:
very cool

Lillateese Simmons 11:07 AM:
If you think the notes are snarky...remove them

McGrath, Jesse 11:16 AM:
too snarky :)

Lillateese Simmons 11:18 AM:
Are you still a regional AQS contact?

McGrath, Jesse 11:19 AM:
In the sense that if I were to go back to air I would be the AQS contact again

ppl still call me with questions -- depending on the nature of the question I'll either answer or tell ppl I'm on detail

Lillateese Simmons 11:20 AM:
can you specify the time when air was removing data? I imagine it hasn't been like that forever...maybe you can say, "Since i've worked in ArD..."

McGrath, Jesse 11:20 AM:
In a more practical sense I'm a very good person to ask AQS questions to, regardless of my official status

I mentioned that in the call and I'm not sure. I believe the push to do this nationally is relatively new, otherwise the old guidance wouldn't say the correct thing

but some people have been doing this for a very long time

Is this for under "What's the big deal?"

Lillateese Simmons 11:22 AM:
Yes...I'm just giving general thoughts by IM

"see 24-450 consecutive flags"

is this a type of flag or a quantity of flags

McGrath, Jesse 11:25 AM:
quantity. There will be that many consecutive records with the same flag

Lillateese Simmons 11:25 AM:
"between 24 and 450 consecutive flags"

McGrath, Jesse 11:26 AM:
"You can expect between 24 and 450 consecutive records with the same flag if data were invalidated because of a QC check. "?

Lillateese Simmons 11:26 AM:
I don't think you mention flags before...

McGrath, Jesse 11:27 AM:
that whole section is on flags... and it's now obvious that not everyone is aware of those jargon terms

NULL codes/QA codes, etc are commonly called flags

Lillateese Simmons 11:27 AM:
aha

McGrath, Jesse 11:28 AM:
You can expect between 24 and 450 consecutive records with the same NULL code if data were invalidated because of a QC check

Lillateese Simmons 11:28 AM:
that clears it up

...everything else looks ok to me

Lillateese Simmons 11:32 AM:
You could also say "you can expect more than 24 consecutive records..."

though that doesn't really show your high end...what if there were 600 flags in a row, would that be something else?

McGrath, Jesse 11:33 AM:
Not sure. They're *supposed* to do checks every two weeks, but sometimes really stretch that

That would be almost a month. Not common, but happens sometimes

And they're looking for improper removal for any reason. Regardless of the reason they'd probably want to look into why a month of data were removed.

Lillateese Simmons 11:39 AM:
yeah, that would be suspicious

you might mention that typical length of time assoc. w/ that number of flags

McGrath, Jesse 11:43 AM:
Sent

Done.

Have to stop editing at some point

Lillateese Simmons 11:43 AM:

so true

did you send the example as well?

McGrath, Jesse 11:44 AM:

no. Still working on that

I wanted to put in that explanation of exactly what removing data this way does, but maybe can wait on that.

So the example is a national QA person's response to me asking him to look into the appropriateness of removing data this way

As in I asked him to check with a statistician about this (something I'd asked him before) because I've always learned it to be wrong.

He sent back a snippy comment and as evidence a perfect example of inappropriate invalidation

Lillateese Simmons 11:47 AM:

forward the message?

McGrath, Jesse 11:48 AM:

I drafted a response, but I never sent my response. I'm sending that with the other bits.

Also, the first part was a voicemail to him so that's missing

I asked if I understood his interpretation correctly "Any point outside of 7% must be invalidated always along with the data back to the last point"

McGrath, Jesse 11:50 AM:

Oh. And I had a trick question on what happens if an NPAP audit fails. Without explaining the details almost everyone says to invalidate the data - but the correct answer is that you might have a hugely serious problem with your monitoring network. His response is a non-answer

Lillateese Simmons 11:53 AM:

trick questions

McGrath, Jesse 11:53 AM:

not a mean trick question. I'm blunt about why I ask it.

As in I ask people what they do with the routine audits, then when they say they invalidate data, I make it very clear that I'm testing their knowledge and ask about NPAP audits

haha I just noticed this worksheet has d^2 and $absolute\_value(d)^2$

$absolute\_value(d)^2$

Lillateese Simmons 11:56 AM:

you don't want a squared martini?

McGrath, Jesse 11:57 AM:

I do, but I have to wait

McGrath, Jesse 11:59 AM:

oh. yeah and I have in there that this is a defensible data set. I think it was even reading above the standard. So even with negative bias it still violated -- which means that you cam be absolutely sure it violated.

Lillateese Simmons 12:02 PM:

why doesn't Kava get its lunch food delivered before 11?

McGrath, Jesse 12:03 PM:
   Ever been to Boni Vino?

   speaking of. I'm hitting lunch.

Lillateese Simmons 12:04 PM:
   pretty sure you've been there with me

McGrath, Jesse 12:04 PM:
   Many thanks for the editing. I think it made the message clearer and more up front.

   My guess is it's on Boni Vino's schedule and they seem pretty laid back. That and it might not keep well in a hot pan.

Lillateese Simmons 12:06 PM:
   you're welcom

   I should start charging for such extensive email editing

   doubt anyone would pay for that though

Lillateese Simmons 12:12 PM:
   lunch, later I'll give you some comments on the new email...so far, I don't get it. So, an appropriate intro would help

McGrath, Jesse 12:34 PM:
   oh. That's not the email I plan on sending to the OIG. That's what I thought of sending to Mike over a year ago to reply to his snippy response.

   I'm just going to send the site and chart to the OIG since they wanted an example of when invalidating data through this method led to a bad call

   The site was certainly violating. All the issues with the data quality were completely imaginary and we should have made a decision

   Instead they invalidated over half the data and said it was too incomplete to do anything.

Lillateese Simmons 12:45 PM:
    ah, its just an FYI email. cool.

McGrath, Jesse 12:47 PM:
   hmm. They didn't invalidate all the data

   The way Mike was ranting in there it sounded like they were going to invalidate everything. But when I look at the posted data it looks like they didn't

McGrath, Jesse 1:00 PM:
   haha I think i know what happened

McGrath, Jesse 1:04 PM:
   yeah

   I suspect that HQ wanted them to invalidate it and asked them to use the wrong code because they don't realize what the codes are for

   And had them use a QA code, not a NULL code.

   So all the flags match up with the "bad" qc dates, but the flags don't invalidate the data. So it's all in the system and was used. But they're not consistent - in some places they used a NULL flag.

Lillateese Simmons 1:06 PM:
   ooh. someone who didn't completely know what they were talking about

McGrath, Jesse 1:07 PM:

Yeah -- or someone who knew exactly what they were talking about

The way they actually did this I would agree with -- I just find it hard to believe they did it intentionally!

Lillateese Simmons 1:07 PM:
  the county?

McGrath, Jesse 1:08 PM:
  Or the state/county pushed back on it. Or the state county said "Yeah sure we'll use that code" and winked and nudged each other

McGrath, Jesse 1:10 PM:
  hm.. Should I include the entire email chain or just the chart?

Lillateese Simmons 1:11 PM:
  the chain shows who, the chart shows what

McGrath, Jesse 1:12 PM:
  I think the text shows what also. I took the text to say the data at this site should be invalidated. I'm really surprise to see it wasn't

Lillateese Simmons 1:13 PM:
  the data should have been invalidated, but it wasn't?

McGrath, Jesse 1:13 PM:
  no no. I don't think the data should have been invalidated. The person who sent me the chart seemed to be saying it should have been invalidated.

  He's the HQ QA person so to see it written that he says it should be invalid, but then find the state didn't do that is very surprising

  So in presenting this as an example I wanted to show an example of where data had been removed that should not have -- but the data haven't been removed here

  which farks up my example to some degree.

  It *might* still work because I have been saying that the states don't totally agree with the HQ QA person's approach. So it's possible that they told him to fark off and used a QA flag instead of invalidating it with a NULL flag

Lillateese Simmons 1:17 PM:
  so, maybe what you are observing, is that most people don't have a good grasp of QC

McGrath, Jesse 1:18 PM:
  I hope that's what I say I have been observing

  My argument here isn't that this one thing is bad. It

  It's that believing in this one thing means that you grossly misunderstand what we're doing - it's almost impossible to come to correct conclusions about anything in QA if you believe the QA/QC checks are there to invalidate data

  It would be like a chemist who believes in phlogiston

Lillateese Simmons 1:20 PM:
  is that a planet?

  sorry, not as nerdy as you think I am

McGrath, Jesse 1:20 PM:
  phlogiston is the alternative theory to combustion

Lillateese Simmons 1:21 PM:
  I was thinking of "Phloston Paradise" sp. from the 5th element

McGrath, Jesse 1:21 PM:

the competing hypotheses were that there is something within an object that is released when it is burned

or that there is something within the air that is consumed when the object is burned

The first is phlogiston, the second is oxygen

Oxygen was proven when they showed that an object would not burn long in a closed container.

oh -- no that's not how they disproved it

It was the mass. Anyone look it up on Wiki

Regardless. If you believed in phlogiston you simply could not succeed in chemistry

well succeed completely. People believed it for quite some time -- but it always led to bizarre conclusions. Oxygen doesn't

Lillateese Simmons 1:31 PM:

thats one thing you have to love about scientists

in the face of overwhelming evidence, they accept it

Lillateese Simmons 1:52 PM:

i've been trying to call someone in contracts all day.

I decided to press 0 so someone could help me...that just got me back into the same person's voicemail box

Lillateese Simmons 1:56 PM:

Actual book title "Correct Mispronunciations of Some South Carolina Names"

(shared in Friday's stupid calendar entry)

McGrath, Jesse 1:58 PM:

ha to both

OK -- much shorter email on its way

Like the Arkansas River in Arkansas -- which is pronounced ar- CAN - sis

Lillateese Simmons 2:01 PM:

instead of following the namesake state, it borrows from a whole other state...interesting

McGrath, Jesse 3:05 PM:

I think Arkansas actually used to be pronounced as Ark Kansas but then ppl got lazy

They just still pronounce the river the same way. It's sort a of a sneaky way to tell who's from the state

Lillateese Simmons 3:06 PM:

Like the local pronunciation of Illinois?

McGrath, Jesse 3:06 PM:

without an S?

Well, that's just people not pronouncing it correctly, though Illinoisans isn't that good either. It's probably something closer to EE-no-ah

For the reverse Nevada people see Nev ADD uh despite that being unbelievably obviously wrong

Lillateese Simmons 3:09 PM:

what?

McGrath, Jesse 3:11 PM:

er Nevada people *say* Nev ADD uh

even though it's Spanish and should be Nev AHD uh

Do you feel like editing even more today?

Lillateese Simmons 3:15 PM:
not really...that last one just had me confused, you were really getting into the particulars.

I wouldn't mind highlighting inconsistent pronouns if that would help

McGrath, Jesse 3:16 PM:
sure

McGrath, Jesse 3:21 PM:
going incommunicado since someone will be using my PC for a min.

well, in a sec anyway

Lillateese Simmons 3:22 PM:
incommunicado...hmm.

Lillateese Simmons 3:49 PM:
Merriam-Webster WOD: expatiate

McGrath, Jesse 4:27 PM:
hmm. Timely?

Lillateese Simmons 5:17 PM:
i thought so

Lillateese Simmons 5:41 PM:
Re: example...should your opinion be showing so clearly?

McGrath, Jesse 5:50 PM:
Mike didn't include the site number thinking he's retaining anonymity

People do that all the time and I don't know why. It's extremely easy to find the sites

Hmm. I have the bit about a strawman because they're extremely effective anti-logic tools

If you can't come up with an effective response to someone's real argument, make a phony nonsense argument that you can take on.

Lillateese Simmons 5:55 PM:
yes yes, but it makes you sound over educated and dismissive

McGrath, Jesse 5:56 PM:
well I am dismissive

Lillateese Simmons 5:56 PM:
ahh. well, own it

McGrath, Jesse 5:56 PM:
better way to say the same thing without that?

But my argument here is only that in order to invalidate data you must show a specific reason, a "special cause", not that agencies don't need to respond to their QC results. The issue with this monitor could have been addressed quickly and I believe the reason this happens is because of the poor understanding of what these QC checks mean.

Lillateese Simmons 5:59 PM:

what are you "but" ing?

yeah. copy and paste. Forgot to remove

In order to invalidate data you must show a specific reason, a "special cause". Agencies need to react to their QC results. There's no excuse for allowing an instrument to be obviously biased for most of a year.